CLAIMS

I claim:

1. Inerting method for extinguishing a fire in a closed room ("target area") in which the oxygen content in the closed room is reduced within a given time (x) to a specific inerting level,

characterized in that

said inerting level is kept to a certain level within a given regulation range, in particular the re-ignition prevention level (R).

2. Inerting method in accordance with claim 1,

characterized in that

said inerting level corresponds to said re-ignition prevention level (R).

3. Inerting method in accordance with claim 1 or 2,

characterized in that

the upper threshold of oxygen content in the regulation range is smaller than or, at maximum, equal to the re-ignition prevention level (R).

4. Inerting method in accordance with claim 3,

characterized in that

the amplitude of the oxygen content in the regulation range has a height of approximately 0.2% by volume.

5. Inerting method in accordance with one of the preceding claims,

characterized in that

the regulating of the oxygen content for lowering said oxygen content to the inerting level and/or for keeping said oxygen content at the re-ignition prevention level (R) ensues with consideration of the air exchange rate of the target area, especially in consideration of the n50 value of the target area and/or the pressure difference between the target area and the environment.

6. Inerting method in accordance with one of the preceding claims,

characterized in that

the calculating of the amount of extinguishing agent for lowering said oxygen content to the inerting level and/or for keeping said oxygen content at the re-ignition prevention level (R) ensues with consideration of the air exchange rate of the target area, especially in consideration of the n50 value of the target area and/or the pressure difference between the target area and the environment.

7. Inerting method in accordance with one of the preceding claims in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area,

characterized in that

the regulating of the supply of oxygen-displacing gas takes into consideration the air/gas pressure in the target area.

8. Inerting method in accordance with one of the preceding claims in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area,

characterized in that

the regulating of the supply of oxygen-displacing gas for lowering the oxygen content to the inerting level and/or for maintaining said oxygen content takes into consideration the base inertization level at the time the flooding begins.

9. Inerting method in accordance with one of the preceding claims in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area,

characterized in that

the regulating of the supply of oxygen-displacing gas is dependent on the current oxygen content, current fire-extinguishing agent concentration respectively, in the target area.

10. Inerting method in accordance with one of the preceding claims in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area,

characterized in that

the regulating of the supply of oxygen-displacing gas is dependent on the oxygen content prior to beginning the lowering of said oxygen content to the specific inerting level.

11. Inerting method in accordance with one of claims 7 to 10,

characterized in that

the regulating of the supply of oxygen-displacing gas ensues pursuant a specific flooding trajectory.

12. Inerting method in accordance with one of the preceding claims,

characterized in that

the time (x) for lowering the oxygen content to the inerting level is preset.

13. Inerting method in accordance with one of claims 1 to 11,

characterized in that

the time (x) for lowering the oxygen content to the inerting level is selected contingent upon the base inertization level at the time the flooding begins.

14. Inerting method in accordance with one of the preceding claims,

characterized in that

the oxygen content in the target area is lowered by introduction of an oxygen-displacing gas from a reservoir kept ready for the purpose.

15. Inerting method in accordance with one of claims 1 to 13 in which the oxygen-displacing gas is made available by means of a production system.

16. Inerting method in accordance with one of the preceding claims,

characterized in that

the oxygen-displacing gas for lowering the oxygen content to the specific inerting level is provided from a reservoir and the oxygen-displacing gas to keep the inerting level at the re-ignition prevention level is provided from a production system.

17. Inerting method in accordance with one of the preceding claims,

characterized in that

the re-ignition prevention level (R) is determined dependent on the characteristic fire load of the target area, especially dependent on the material present within said target area.

18. Inerting method in accordance with one of the preceding claims,

characterized in that

the re-ignition prevention level (R) is determined dependent on any given equipment and/or machines accommodated within the target area and their operating states.

19. Inerting method in accordance with one of the preceding claims,

characterized in that

any given equipment and/or machines accommodated within the target area are brought into a pre-defined operational state prior to lowering the oxygen content to the specific inerting level.

20. Inerting method in accordance with one of the preceding claims in which the lowering of the oxygen content in the target room begins at Time t0 of an early fire detection.

21. Device for carrying out the inerting method in accordance with one of the preceding claims comprising at least one oxygen/inert gas sensor for the continuous measuring of the oxygen content and/or the inert gas content in the target area; at least one fire detector for detecting at least one fire parameter in the target area; an inert gas mechanism for inerting the target area with an oxygen-displacing inert gas; and a control/regulating means for controlling the inert gas mechanism such that after detecting a fire parameter, the oxygen concentration in the target area is lowered to a specific inerting level by the inerting of the target area,

characterized in that

said control/regulating means regulates the inerting level to a specific level within a given regulation range, in particular the re-ignition prevention level (R) specific to the target area, and namely by correspondingly controlling the inert gas means dependent on the oxygen content and/or inert gas content as continuously measured by the at least one oxygen/inert gas sensor.

22. Device in accordance with claim 21,

characterized in that

the control/regulating mechanism comprises a memory with a table which stores predefined re-ignition prevention levels (R) dependent on the equipment and/or machines accommodated in said target area and their operational states.

23. Device in accordance with claim 21 or 22,

characterized in that

the least one fire detector is a detector for early fire detection.